Journal of Applied Health Sciences and Medicine 1 (1) (2021) 01-12

Self-Knowledge and Body Image among Cervical Cancer Survivors' Women in Northern Upper Egypt

Hanan Elzeblawy Hassan[1 *], Hagar Masaud[2], Ragaa Mohammed[3], Soad Ramadan[4]

Received: 18 February 2021; Accepted: 06 March 2021; Published: 10 March 2021

Abstract

Background: The 4th most common malignancy in females is cervical cancer. Cervical cancer impacts the entire life of a patient, including the image of the body. **Aim:** The study is aiming to evaluate women's self-knowledge and physical image among Northern Upper Egyptian survivor women. **Methods;** ***Design:*** A descriptive design of research was carried out. ***Setting***: Beni-Suef University Hospital's out-patient oncology clinic. ***Subjects:*** 70 women in a deliberate sample. ***Tools:*** Data were gathered via a structured questionnaire and a women's knowledge rating system for cervical cancer and body image scale. ***Results:*** The results of the study showed that one-third of the females were diagnosed with cervical cancer in the first stage, 22.9% of the females studied had knowledge of cervical cancer, 10.0% of cervical cancer had been diagnosed, 71.4% had been diagnosed with manifestations and control, 20.0% had knowledge of predisposing factors, 11.4% of cervical diagnostic procedures More than half (57.1 per cent) of the women who have been evaluated claimed that they are very unhappy with their looks and less feminine due to sickness and treatment. Over 1/3 (38.7%, 38.6%, 44.3%) indicated a sensation that they were not content with their body, that it was hard to see naked and felt that the treatment made the body less whole. **Conclusion:** Older, less educated, urban people were more likely to suffer from self-knowledge and body image problems, and those who were under the age of 20 years of marriage. **Recommendations:** A training course is being designed and information on cervical cancer risk, prevention and early diagnosis to enhance the intake of cervical cancer is being communicated to women. Educate women with cervical cancer to improve the image of themselves.

Keywords: Cervical Cancer, Women's Knowledge, Body Image

1. INTRODUCTION

[1] Associate professor Maternal and Newborn Health Nursing, Faculty of Nursing, Beni-Suef University, Egypt
[*] Corresponding author email: nona_nano_1712@yahoo.com
[2] Assistant lecturer of Maternal and Newborn Health Nursing, Faculty of Nursing, Beni-Suef University, Egypt
[3] Professor of Maternity & Neonatal Nursing, Faculty of Nursing, Cairo University, Egypt
[4] Professor of Obstetrics and Women Health Nursing, Faculty of Nursing, Benha University, Egypt

Cervical cancer impacts all elements of the life of a patient, including images of the body [1-6]. Cervical cancer is the fourth most common disease for women, accounting 6.6% of all female cancer, with around 570,000 new cancer cases in 2018. In poor and middle-income nations around 90% of deaths from cervical cancer occurred [7].

Pitcher said 'the picture of the body' reflects the way in which one views and experiences his body subjectively [8]. The phrase "body image," as defined by the National Cancer Institute, nevertheless, represents the is aesthetism of the body and the attractiveness of the body. The attractiveness of the human body is considered essential throughout history by human beings [9]. Cervical cancer diagnosis and treatment may cause alterations in the image of the female body that also may shatter the intimacy [10]. Body image and intimacy may be different after cancer, but different doesn't equal either better or worse. Women may require more openness and confidence to adjust to these changes [11]. HPV infection is common, and the body can remove the infection naturally in most people [12-13]. The infection is sometimes not gone and chronic. Chronic infection may eventually lead to some malignancies, including cervical cancer, especially when caused by certain high-risk HPV strains. Although HPV infection is not currently cured, warts and abnormal cell growth are being treated in a manner that is caused by HPV [14].

However, the American cancer society (2020) has shown that these symptoms may have other origins. However, if one of the symptoms arises, women should visit a physician immediately [15]. Unintended symptoms can result in a higher stage of cancer and their probability of successful treatment may decrease [16]. Aldhafar et al (2016), vaginal bleeding (50.6%) and lower back pain (28.4%), sexual pain (25.8%) and polymenorroia (42.4%); persistent, uncomfortable vaginal smell (30.4%), postmenopausal bleeding (55.2%), persistent pelvic pain have been shown to show respondents symptoms and signs of cervical cancer (42.4 percent),

The development of the cancer stage is essential as it helps the health care professional identify the optimum sort of therapy. A four-stage approach is the most common technique for cervical cancer. Stage 0: precancer cells. Stage 0. Stage 1: Deeper tissues were formed from the surface into cancer cells in the uterus and nearby lymph nodes [18]. In the second stage, cancer passes over the cervix and cervix but not down into the vagina and pelvic walls. In the third stage, the bottom part of the vagina is carcinogenic. In the fourth stage, cancer assaults and grows in the bowl of the bladder or rectum. It might spread subsequently to faraway bodies [19].

The Pap test is a surgical procedure to extract cervix cells to be analysed [20-22] for cancer and pre-cancer. Biopsy is the only way of knowing whether most types of cancer have cancer in the body [23-25]. Cornforth & Sadaty (2019) has further demonstrated that colposcopy is useful for the identification and testing of cervical neoplastic invasive carcinoma [26]. Klop et al. [2015] indicated that pelvic anesthesia-related testing is an excellent way for therapeutic treatment and evaluation, including the uterus, vagina, bladder, or rectum, of progression of cancer to organ near to the cervix [27]. The American Cancer Society has also been demonstrated to use the CT scan (2020) [15]. For a detailed view of the body, MRI utilises magnetic fields. The magnet fields are used by MRI. The measurement of the tumour can be made using MRI [28]. Usually, a CT scan termed a PET-CT scanning [29] will be combined with a PET or PET-CT scan. In order to evaluate if the blood has progressed towards cervical cancer, cystoscopy is performed [30].

There are various kinds of therapy options for persons with cervical cancer. There are five standard treatment procedures in use: surgeries, radiation therapy, chemical therapy, special treatment and immunotherapy. New therapy approaches are being studied in clinical trials. Treatment of cervical cancer could cause adverse effects. Patients may desire a clinical study to be considered. Patients might go to the clinical trial before, during or after cancer therapy [31-38].

2. AIM OF THE STUDY

The present study seeks to evaluate the self-known and corporal image of women of survivors in Northern Upper Egypt.

3. SUBJECTS AND METHODS

3.1. Research Design

For the current study, a descriptive design was used.

3.2. Setting

The oncology department of hospital at Beni-Suef.

3.3. Subjects:

The sample size was 70 females; cervical cancer survived

3.4. Tools of Data Collection

Two tools were utilised to collect data to achieve the purpose of this study;

3.4.1. **A Structured interviewing questionnaire sheet**

It was built on the basis of an assessment of recent publications by Arabic scientists. It was composed of the socio-demographic and medical-chirurgical features of women. The women's cervical cancer score system was established for women's cervical cancer knowledge, for example (definition, causes, signs, symptoms, risk factors, methods of prevention, diagnosis, treatment).

3.4.2. **Body Image Scale**.

The image of the female's body is self-reporting. This ten-point scale was built in conjunction with the design of the EORTC (Hopwood et al. 2001) [39]. [39].

3.5.Administrative & Ethical Considerations:

It has been approved by the Director of Hospital at Beni-Suef University. All women included have been advised of the voluntary engagement and of the opportunity to accept or deny study involvement. Seven ladies underwent pilot research. Data were obtained between the beginning of August 2019 and end of January 2020.

3.6.Statistical analysis

The data acquired have been updated, coded, registered and entered on a PC via a social science statistics package (IBM SPSS 25.0). Par charts have submitted data.

4. RESULTS

Figure (1) It shows that their ages ranged from 30-40 years about slightly less than a quarter of the study population. Little under half of them had high school and were employed. Most of the women (52.8 percent) were urban

Figure (2) It demonstrates that more than 1/3 of women were diagnosed with cervical cancer in the 1st degree and that slightly less than 3/3 of the women under study had a symptoms and sign diagnosis of cervical cancer. More als one three-third of women have had total hysterectomy, radiation therapy, chemotherapy, and surgery.

Figure (3) It indicates that only 22,9% of studied females know the definition of cervical cancer, 10,0% have identified a cause of cervical cancer or 71,4% of the studied women have indications and management of the manifestations, 20,0% of the known predisposing factors, 11,4% of cervical cancer diagnostics and only 2,9% of the studied women have known preventives.,

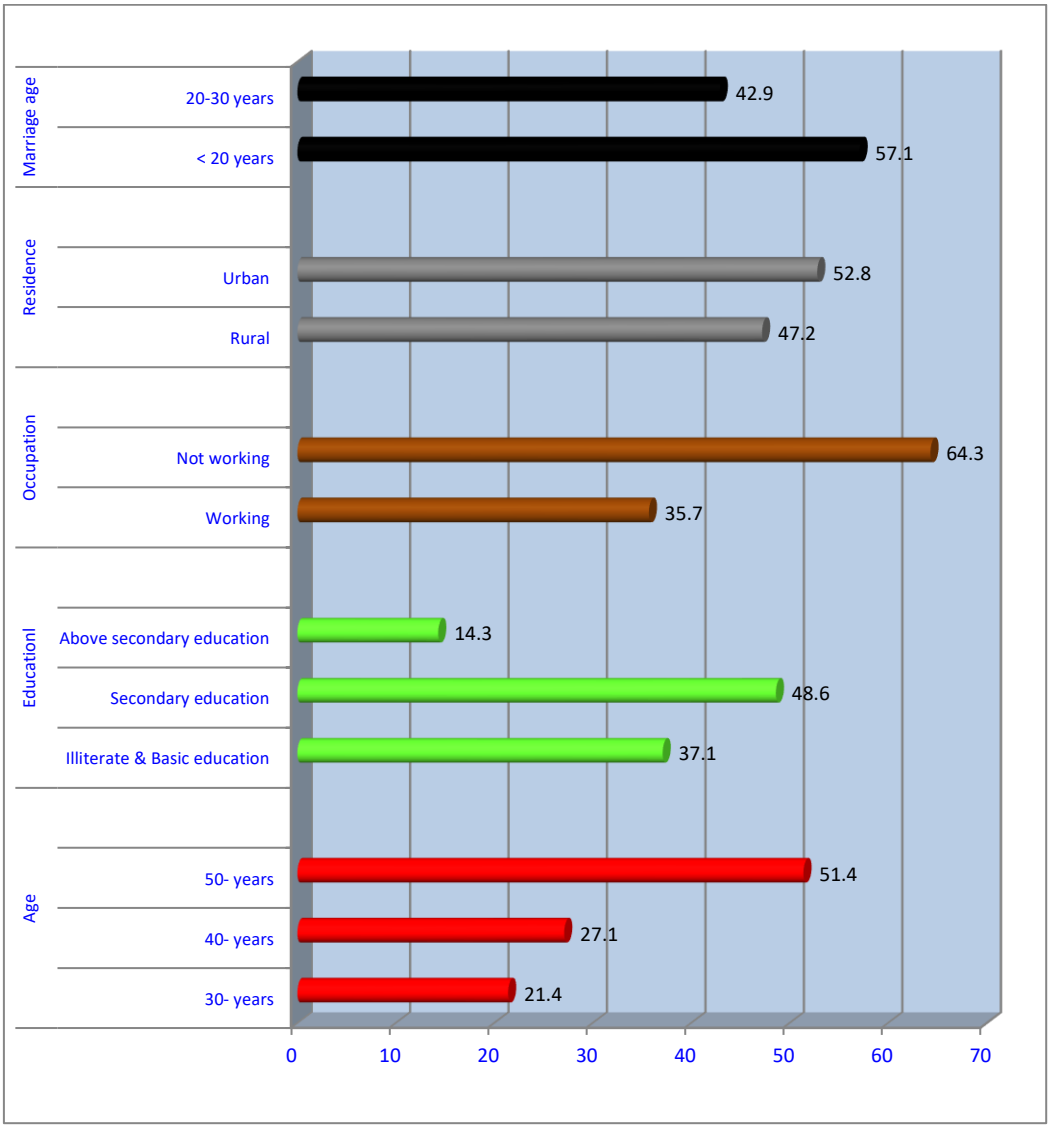

Figure (1): Distribution of socio-demographic characteristics of the study subjects (n=70).

Figure (4) Revealed scores for the women in the body; more than half (57.1%) of women surveyed reported being dressed and being less feminine as a result of illness or treatment. Over 1/3 (38.7%, 38.6%, 44.3%) expressed feeling very unhappy with their physique, finds it difficult to appear naked and feel that the therapy has made the body less entire.

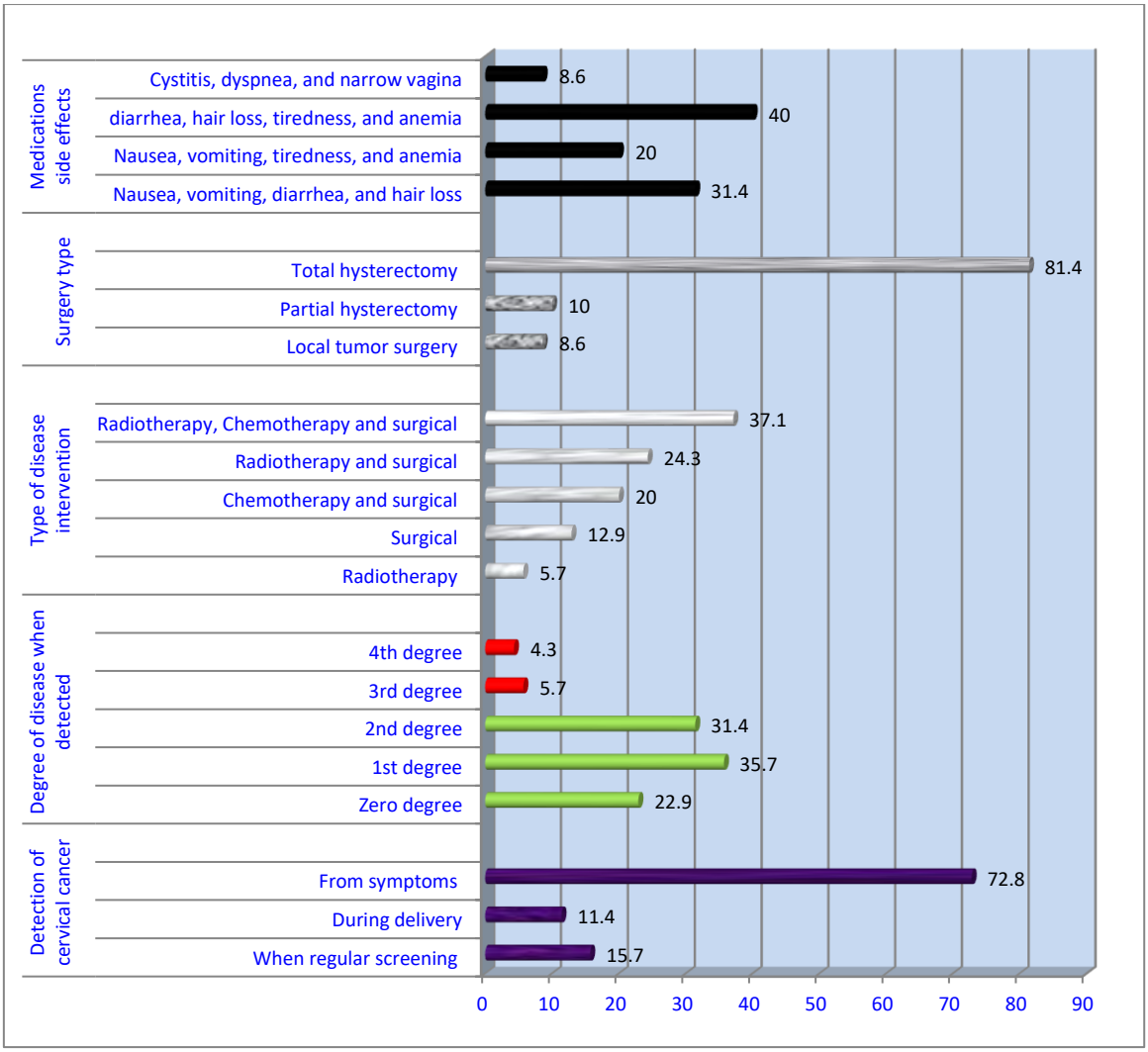

Figure (2): Distribution of the study subjectsaccording to their medical-surgical history

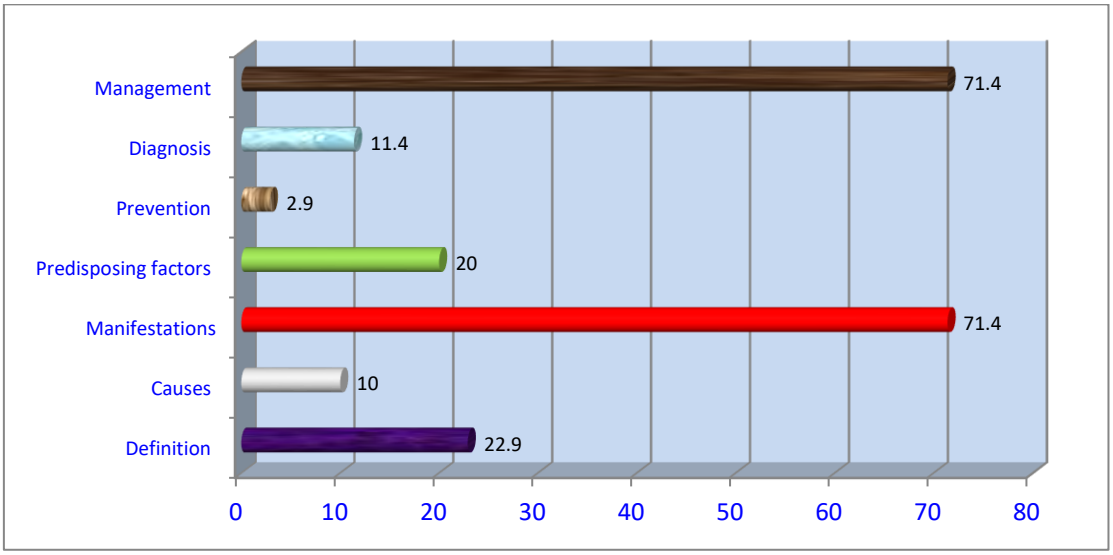

Figure (3): Percentage distribution of women's knowledge regarding cervical cancer (n = 70).

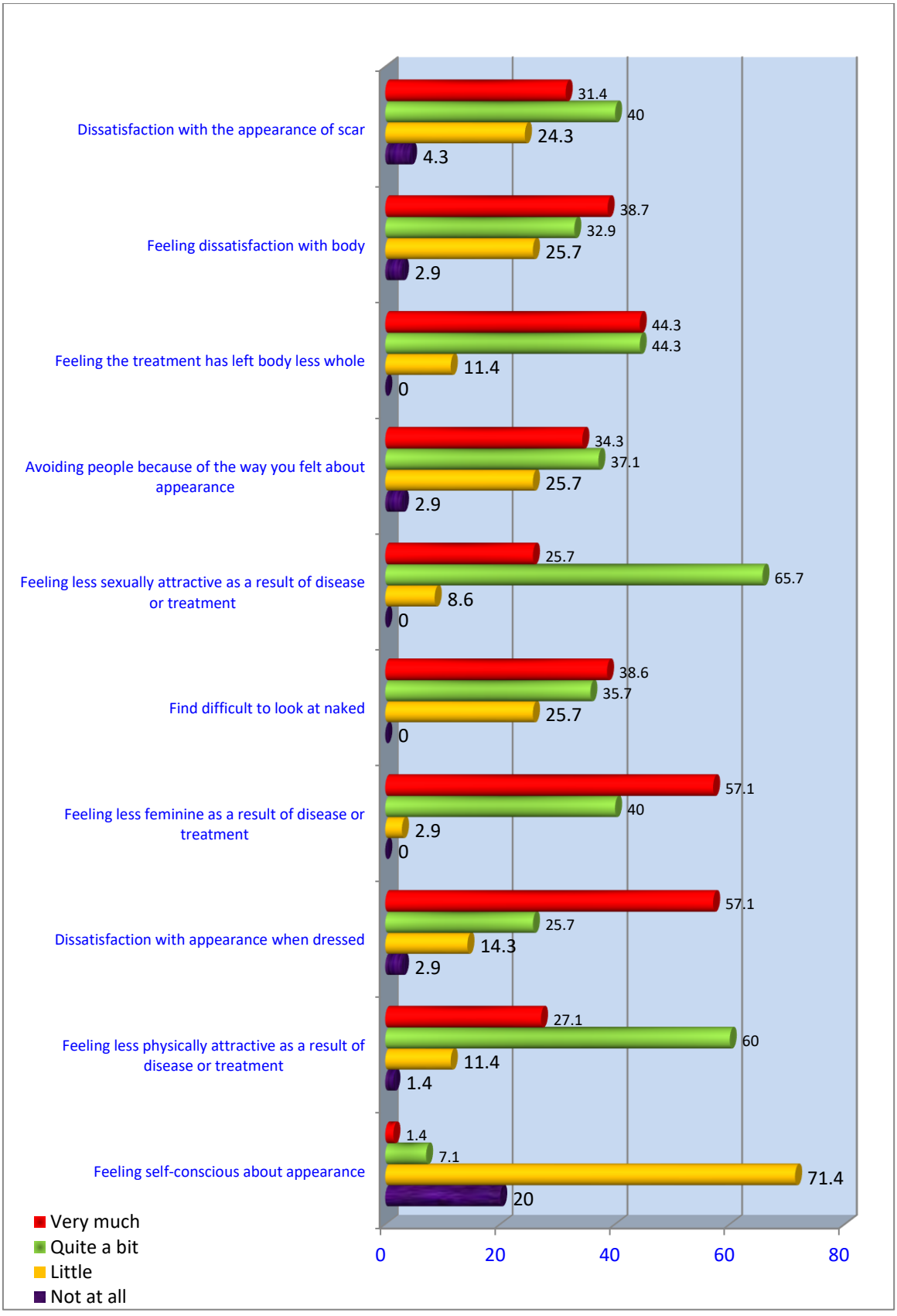

Figure (4): Percentage distribution of women's body image scores (n = 70).

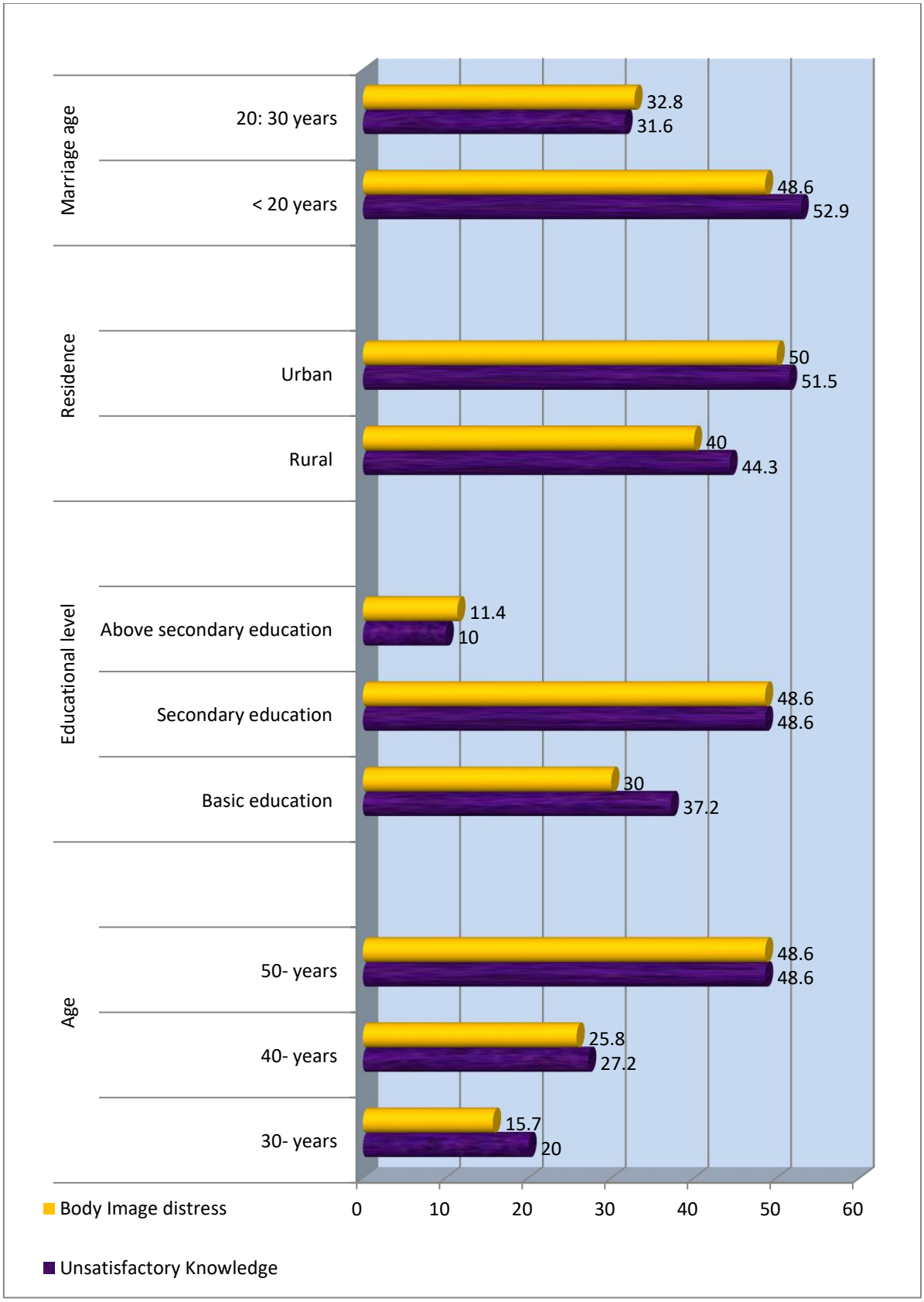

Figure (5): relationship between demographic characteristics of the study subjects and their body image scores and total knowledge score

Figure (5) The association between the demographic properties of women and their insufficient self-knowledge and bodily pain is revealed. Both variables were more prominent among senior people with less education, urban residents and those with an age for marriage of under 20. (Self-knowledge and body image discomfort).

5. DISCUSSION

Cervical cancer arises when cells of the cervix spread and other body and tissues invade [40-41] unnaturally. The presence and intimacy of cervical cancer is strong in many aspects of a patient's life [27,42].

As regards the demographic characteristics of the participants, 21.4% of the study participants sample their age from 30 to 40, whilst 47.6% additionally learn secondary education. Said et al. (2018) found that half of the women's ages ranged from (30–40) and 46.2 per cent (27) in the age of secondary education to "Effect of education on women's knowledge and attitude in cervical cancers"[13].

Researchers are attempting to carry out a study to assess how women are affected with cervical cancer by a psychological intervention programme on women's body image; the results indicate that most women surveyed suffer from a bodily distress [43]. It is no surprise that the picture of body and intimacy after cancer could be altered according to Edlund (2019) [10]. This is the same as in this study. Other authors have pointed out that cervical cancer has an impact on many aspects of a patient's life, including self-conception and body image [1-6].

In relation to female cervical knowledge, the study shows that 22.9% know the definition, 10.5% have knowledge of the causes, 20.0% know the predisposition, 2.9% know preemptive, 11.4% know the diagnosis,71.4% know the administration. The study shows that 10.0% know the cause, 71.4% know the manifestation,20. Atwa et al. (2019), with 12.1% of females aware of symptoms, with 15.0% aware of diagnostic variables and screening testing [20], has 8.0% of females. In addition, Getahun et al (2012) showed that women's understanding, although the vast majority were female, of risk factors, indicators, and symptoms was low [44], [33].

The results of this research reveal that the appearance was very dressy and less women-feminine as a result of disease or treatment for more than half of the women analysed. More than one third of them were severely unhappy, looked naked and felt that therapy made their body less complete. Corrêa et al. (2015), which reported the unique views of the body following cancer [11], are compatible with this.

As far as the relationship between the characteristics of women and the self-known and pictures of their bodies is concerned, current findings have shown that older women are less bothered than younger women with more body and knowledge. This can be attributed to older women with more cervical cancer experience. The findings reflect the fact that daily life develops experiences and knowledge [45-48]. The age of women is tightly associated with the picture of women since elderly ladies have higher body suffering. This indicates that the older the female, so that they are more concerned about their body images, is less likely to have treatments and their notions of how surgery, chemistry, and radiation interact.[29]. Education plays an important influence in the image of women

themselves as well as their understanding of cervical cancer. The amount of education in Mitiku & Tefera (2016) has been largely related to knowledge about cervical cancer among women [49], comparable to the results of our research. The reason is that the better educated women can gain scientific knowledge more often [45-46]. The Educational Degree has an impact on the learning process as cited in the Hassan and al. (2017) by Sabilu et al. (2016). The more information the individual can acquire the more information (30-51) Sabilu et al. confirms these findings. Body distress (11.4percent) was less prevalent among highly educated women compared to secondary school women and women with basic schooling. This can be attributed to it; highly qualified women tend to acquire better positions. Thus, they will be independent and have more treatment options. Previous investigations have shown that housewives are more depressed and/or worried than foreign workers [52-54]. [37]. Boivin (2003) also pointed out that in females at home, psychiatric disease is more common than in working women [55].

Early marriage is harmful to women's education; it has exposed women to both ignorance and problems. Early marriage stopped women from learning, from having a good career and from being dependent on their children financially. As a result, young women were more likely to live in poverty than women who postponed their marital age. In addition, delayed marriage age was essential for the enhancement of women's standing and their usefulness in the decision-making process [51,56]. The results of this study indicate that women under 20 years of age are more likely to get a poor score and register a complaint in their own image.

6. CONCLUSIONS

The study concluded that women's socio-demographic features may affect their degree of knowledge and body image in terms of cervical cancer.

7. RECOMMENDATIONS

Based on the results of the investigation, the following are proposed:

a) To develop an education programme and to disseminate women information on the risk of cervical cancer, prevention and early diagnosis of cervical cancer in an effort to improve their intake.

b) A training programme for women with cervical cancer to improve self-body image.

References

[1]. Nady F., Said M., Youness E., Hassan H. Effect of Nursing Intervention Program on Quality-of-Life Improvement for Women Undergoing Gynecological and Breast Cancer Treatment. Assuit Scientific Nursing Journal, 2018; 6(15): 62-77.

[2]. Mohammed F., Shahin M., Youness E., Hassan H. Survivorship in Women Undergoing Gynecological and Breast Cancer Treatment in Upper Egypt: The Impact of Quality of Life Improvement Educational Program". American Research Journal of Gynaecology. 2018; 2(1): 1-28. doi:10.21694/2577-5928.18001

[3]. Hassan H. Early Stage Cervical Cancer: Survivorship and Fertility preservation. American Research Journal of Oncology, 2020; 2(1): 1-3.

[4]. Carter J., Lacchetti Ch., Andersen B., Barton D., Bolte S., Damast Sh., Diefenbach M., DuHamel K., Florendo J., Ganz P., Goldfarb S., Hallmeyer S., Kushner D., Julia H

Rowland J. Interventions to Address Sexual Problems in People With Cancer: American Society of Clinical Oncology Clinical Practice Guideline Adaptation of Cancer Care Ontario Guideline. Clin Oncol., 2018, 10; 36(5):492-511. Doi: 10.1200/JCO.2017.75.8995.

[5]. Nady F., El-Sherbiny M., Youness E., Hassan H. Effectiveness of Quality of Life Planned Teaching Program on Women Undergoing Gynecologic Cancer Treatment. American Research Journal of Oncology. 2018; 1(1): 1-17.

[6]. Hassan H., Saber N., Sheha E. Comprehension of Dyspareunia and Related Anxiety among Northern Upper Egyptian women: Impact of Nursing Consultation Context Using PLISSIT Model. Nursing & Care Open Access Journal. 2019; 6(1): 1-19. DOI: 10.15406/ncoaj.2019.06.00177

[7]. WHO, Human papillomavirus (HPV) and cervical cancer, 2018; available at; https://www.who.int/news-room/fact-sheets/detail/human-papillomavirus-(hpv)-and-cervical-cancer.

[8]. Pitcher S., Adams T., van L., Fakie N., Saidu R, Denny L, Moodley J. Holistic sexuality post gynecological cancer treatment: A review of recent literature. SA journal of oncology, 2018; (2)

[9]. National Cancer Institute. PDQ treatment summary for health professionals. Cervical cancer, 2014

[10]. Edlund C. Sexuality, Intimacy and Cancer: A guide for people with cancer and their partners. Cancer Council Australia, 2019. ISBN 978 1 925651 50 8

[11]. Corrêa C., Leite I., Andrade A., Guerra M. Cervical Cancer Treatment and Its Effects on Sexual Function: Recent Evidence and Approach. Austin J Women's Health, 2015; 2(1)

[12]. Mohamed A., Hassan H., Gamel W., Arafa A. Awareness about breast and cervical cancers among nursing students in Beni-Suef University. Journal of Nursing Education and Practice, 2019; 9(5): 44-51. doi.org/10.5430/jnep.v9n5p44

[13]. Said S., Hassan H., Sarhan A. Effect of an Educational Intervention on Women's Knowledge and Attitude Regarding Cervical Cancer. American Journal of Nursing Research, 2018; 6(2): 59-66. doi: 10.12691/ajnr-6-2-4.

[14]. Nady F., Said M., Youness E., Hassan H. Impact of Tailored Educational Program of Quality of Life Improvement on Women Undergoing Breast Cancer Treatment at El-Minia Region, Egypt. American Research Journal of Gynaecology. 2017; 1(1): 1-17. doi:10.21694/2577-5928.17001.

[15]. American Cancer Society, Treatment Options for Cervical Cancer, by Stage, 2020; available at; https://www.cancer.org/cancer/cervical-cancer/treating/by-stage.html.

[16]. Hassan H., Atwa A. Occupational Stress, Job Satisfaction and Cervical Screening Intention of Maternity Oncology Nurses, Medical Science & Healthcare Practice, 2017; 1(1): 48-59. doi:10.22158/mshp.v1n1p48

[17]. Aldhafar A., Alhulayb A., Khan T. Knowledge, Early Signs and Symptoms, Risk Factors and Prevention of Cervical Cancer among Teachers in the Urban Schools in Al-Ahsa, 2016; available at; https://www.ijss-sn.com/uploads/2/0/1/5/20153321/ijss_jun_oa18-2016.pdf.

[18]. World Health Organization, Comprehensive Cervical Cancer Control A guide to essential practice, Second edition, 2014; available at; file:///C:/Users/zas/Downloads/9789241548953_eng.pdf.

[19]. Chun, C. What you need to know about cervical cancer, 2019; available at; https://www.medicalnewstoday.com/articles/159821.php

[20]. Atwa A., Hassan H., Ahmed S. The impact of a hospital-based awareness program on the knowledge of patients about breast cancer and cancer cervix. International Journal of Studies in Nursing. 2019; 4(1): 20-29. doi:10.20849/ijsn.v4i1.537.

[21]. Salcedo P., Baker S., Schmeler M. Intraepithelial neoplasia of the lower genital tract (cervix, vagina, vulva): etiology, screening, diagnosis, management. In: Lobo RA, Gershenson DM, Lentz GM, Valea FA, eds. Comprehensive Gynecology, 2017; 7th ed. Philadelphia, PA: Elsevier: chap 28.
[22]. Hassan H., Bayoumi M., Atwa A. Emotional Distress Associated with Gynecologic and Breast Cancer in Beni-Suef City. International Journal of Science and Research, 2016; 5(2): 1118-1129.
[23]. Qalawa, Sh., Eldeeb, A., & Hassan, H. Young Adult Women's intention regarding breast and cervical cancer screening in Beni-Suef. Scientific Research Journal, 2015; 3(3): 11-24.
[24]. Zagloul M., Naser E., Hassan H. Cervical Cancer Knowledge, Attitude, and Practices: Educational Program Management for Female Workers at Port Said University. International Journal of Studies in Nursing, 2020; 5(3): 1-16. doi:10.20849/ijsn.v5i3.776.
[25]. Ifemelumma C., Okorochukwu B., Onu F., Obuna J., Ejikeme B., Ezeonu O. Cervical Cancer Screening: Assessment of Perception and Utilization of Services among Health Workers in Low Resource Setting, International Journal of Reproductive Medicine, 2019.
[26]. Cornforth T. & Sadaty A. Colposcopy Overview What to expect when undergoing this test, 2019, available at; https://www.verywellhealth.com/what-is-a-colposcopy-3520585.
[27]. Klopp H., Eifel J., Berek S., Konstantinopoulos A., DeVita T., Lawrence S., Rosenberg A. Cancer: Principles and Practice of Oncology. 2015; 10th edition. Philadelphia: Wolters Kluwer Health/Lippincott Williams & Wilkins. 72: 1013-1047.
[28]. American Cancer Society. MRI for Cancer, 2015; available at; https://www.cancer.org/treatment/understanding-your- diagnosis/tests/mri-for-cancer.
[29]. Nordqvist C. & Marcin J. PET scans: Uses, risks, and procedure, 2017; available at; https://www.medicalnewstoday.com/articles/154877.php
[30]. Boardman C. & Huh W. Cervical Cancer Workup, 2019; available at ; https://emedicine.medscape.com/article/253513-workup
[31]. Rushdan M., Eng T., Jen L. Gynecologic Cancer: A Handbook for Students and Practitioners,1st edition, Pan Stanford publishing, USA, 2014; pp: 2014-242
[32]. Markovic N. & Markovic O. What Every Woman Should Know about Cervical Cancer: Revised and Updated, 2016; 2nd edition, Springer; pp:102-107.
[33]. Garza J., Morales, F., Meneses A. Cervical Cancer, 2017; 1st edition, Springer, pp: 163-215, available at; https://books.google.com.eg/books?isbn=3319452312.
[34]. National cancer institute. Radiation Therapy to Treat Cancer, 2019; available at; https://www.cancer.gov/about-cancer/treatment/types/radiation-therapy.
[35]. Carter A. & Brazier Y. What you need to know about chemotherapy, 2019; available at; https://www.medicalnewstoday.com/articles/158401.php.
[36]. Chiras D. Human biology, 2019; 9th edition, jones and bartlett learning, USA; pp: 531, available at ; books.google.com.eg › books.
[37]. Zamarin D., Jazaeri A. Leveraging immunotherapy for the treatment of gynecologic cancers in the era of precision medicine, Gynecol Oncol., 2016; 141(1).
[38]. Hassan H. Evidence-Based Practice in Midwifery and Maternity Nursing for Excellent Quality of Care Outcomes. American Journal of Nursing Research, 2020; 8(6): 606-607. doi: 10.12691/ajnr-8-6-3.
[39]. Hopwood P., Fletcher I., Lee A., Ghazal S. (2001): A body image scale for use with cancer patients. European Journal of Cancer, 2001; 37(2):189-97. DOI: 10.1016/S0959-8049(00)00353-1
[40]. Abd El Salam S., Hassan H., Kamal K., Ali R. Women's Sexual Dysfunction Associated with Cervical Cancer. Applied Science and Computer Mathematics, 2021; 2(1): 17-27

[41]. Hassan H., Mohammed R., Ramadan S., Masaud H. Impact of an Educational Program on Sexual Issues among Cervical Cancer Survivors' Women in Northern Upper Egypt. Journal of Obstetrics Gynecology and Reproductive Sciences, 2021; 5(1); 1-15. DOI: 10.31579/2578-8965/061.
[42]. Ramadan S., Hassan H., Masaud H., Mohammed R. Women's Body Image Distress Associated with Cervical Cancer. Journal of Obstetrics Gynecology and Reproductive Sciences, 2021; 5(1)
[43]. Ali R., Abd El Salam S., Kamal H., Hassan H. Women with Cervical Cancer: Impact of an Educational Program their Knowledge. Journal of Obstetrics Gynecology and Reproductive Sciences, 2021; 5(2): 1-8. DOI: 10.31579/2578-8965/063.
[44]. Getahun F., Mazengia F., Abuhay M., Birhanu Z. Comprehensive knowledge about cervical cancer is low among women in Northwest Ethiopia. BMC Cancer, 2013; 13, 2
[45]. Elgendy A., Hassan H., Elsaid F., EL-Sherbeny E. Nurses' Awareness Regarding Zika Virusin Beni-Suef Governorate. American Research Journal of Public Health. 2018; 1(1): 30-42. DOI:10.21694/2639-3042.18003
[46]. Sheha E., Hassan H., Elsherbeny E., Elgendy A. Integrated Intervention Program for Pregnant Women toward ZIKA Virus Infection in Upper Egypt. International Journal of Studies in Nursing, 2021; 6(1)
[47]. Masaud H., Hassan H., Mohammed R., Ramadan S. Women's Sexual Distress Associated with Cervical Cancer. Sumerianz Journal of Medical and Healthcare, 2021; 4(1)
[48]. Ali R., Kamal H., Hassan H., Abd El Salam S. Impact of an Educational Program on Sexual Distress Associated With Cervical Cancer. Further Applied Healthcare, 2021; 1(1): 13-25.
[49]. Mitiku I., Tefera F. Knowledge about Cervical Cancer and Associated Factors among 15-49 Year Old Women in Dessie Town, Northeast Ethiopia. PLoS ONE, 2016. doi.org/10.1371/journal.pone.0163136
[50]. Sabilu Y, Kusnan A, Saptaputra S, et al. The Sexually Transmitted Infection (STI) In Women Sexual Workers (WSW) in Southeast Su- lawesi Province. IOSR Journal of Nursing and Health Science. 2016; 5(6): 119-122. https://doi:10.9790/1959-050601119122
[51]. Hassan H, Nasr E. Improving nurses' knowledge and skills regarding tocolytics for inhibiting preterm labor. Clinical Nursing Studies. 2017; 5(1): 1-12. https://doi.org/10.5430/cns.v5n1p1.
[52]. Hassan H. Infertility profile, psychological ramifications and reproductive tract infection among infertile women, in northern Upper Egypt. Journal of Nursing Education and Practice. 2016; 6(4): 92-108. https://doi.org/10.5430/jnep.v6n4p92.
[53]. Hassan H. Evidence-Based Practice in Midwifery and Maternity Nursing for Excellent Quality of Care Outcomes. American Journal of Nursing Research, 2020; 8(6): 606-607. doi: 10.12691/ajnr-8-6-3.
[54]. Hassan H., Kamal H., Abd El Salam S., Ali R. Survivors from Cervical Cancer: Impact of an Educational Program on Self-Knowledge and body-Image. Public Health Open Access, 2021; 5(1).
[55]. Boivin J. A review of psychological interventions in infertility. Soc sci med, 2003; 57:2325-2341.
[56]. Chou K & Chi I. Childlessness and psychological well-being in Chinese older adults. Int J Geriatr Psychiatry. 2004;19(5):449-57.